

Figure 1

The lack of salt activation for *E. faecalis* MurD

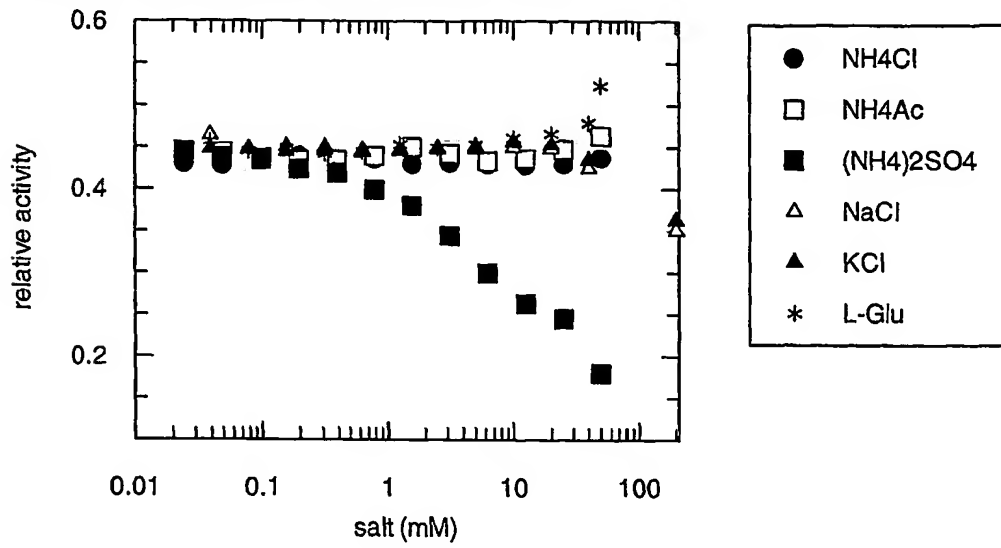
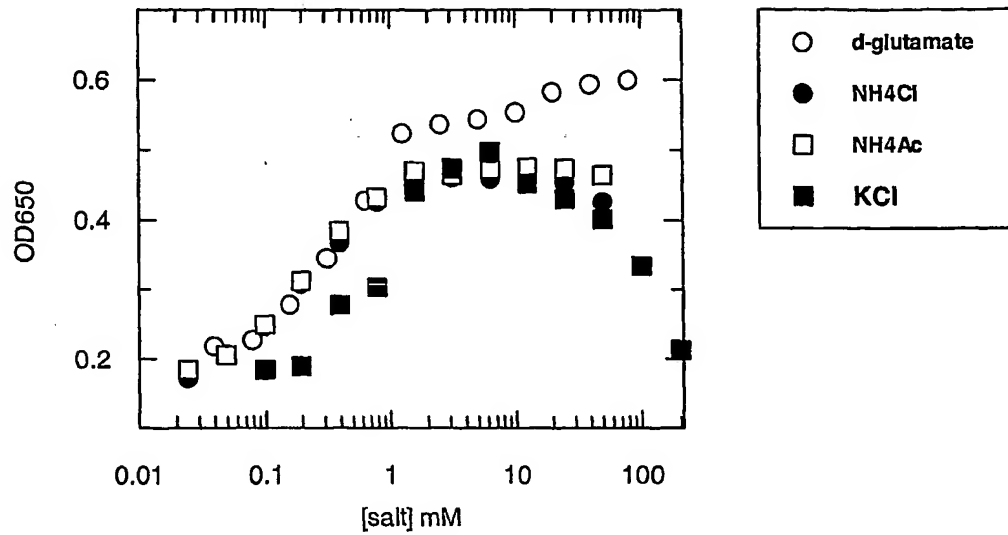


Figure 2**Salt activation of *S. aureus* MurD**

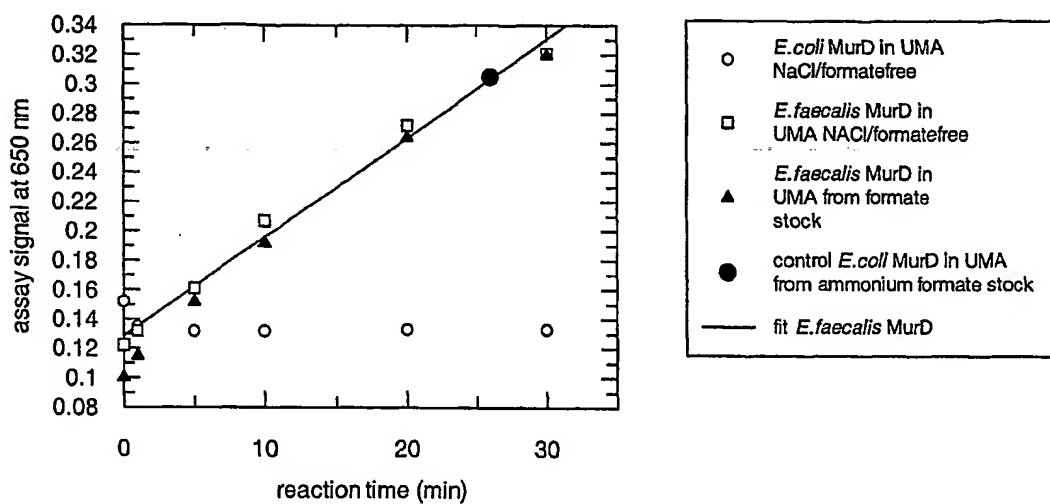
**Figure 3*****E. coli* enzyme activity is dependent on ammonium formate**

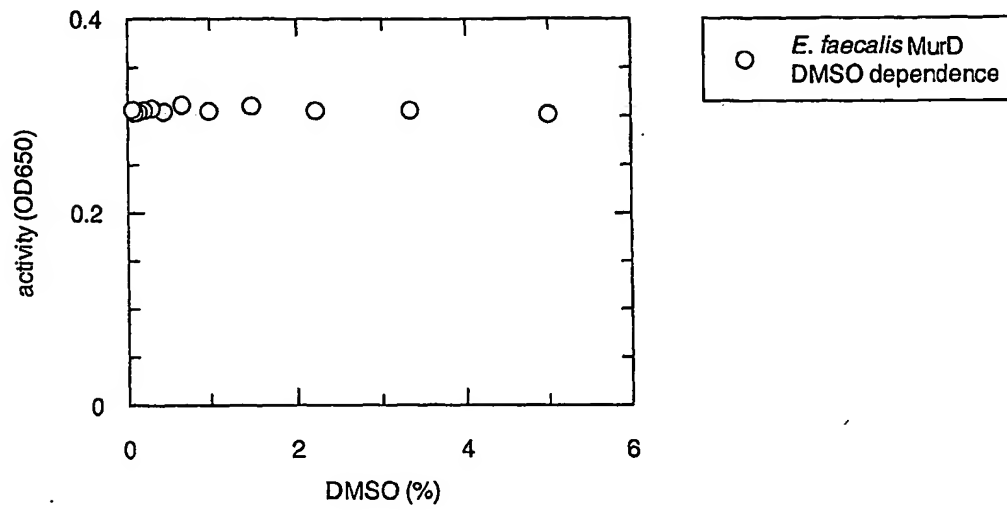
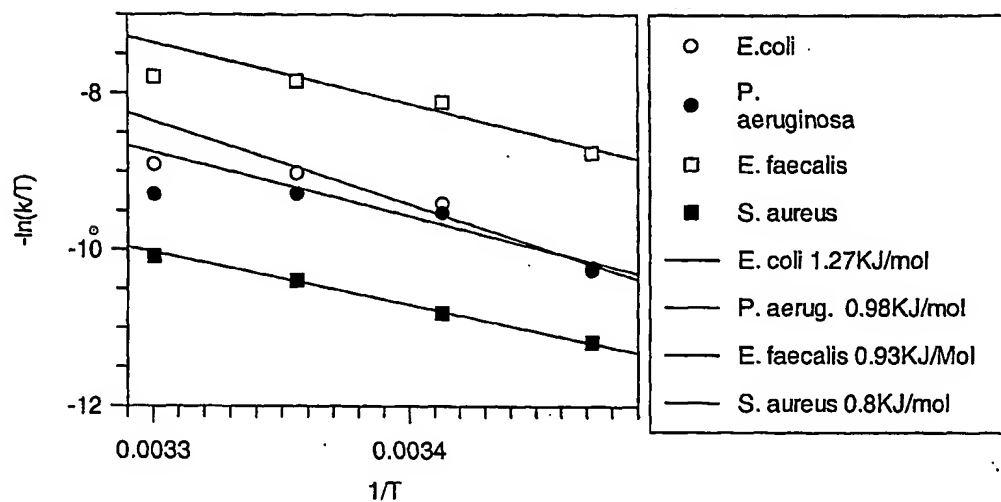
Figure 4**DMSO dependence of *E. faecalis* MurD**

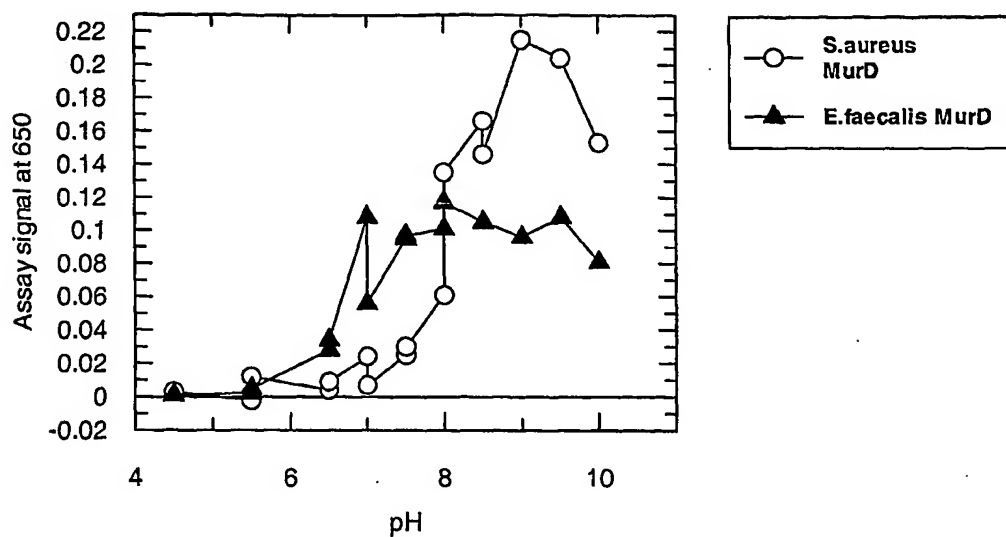
Figure 5**Temperature dependence of MurD orthologs**

This Graph (Eyring Plot) shows the activation enthalpies for all for orthologs. The higher this value the more temperature dependent the reaction rate.

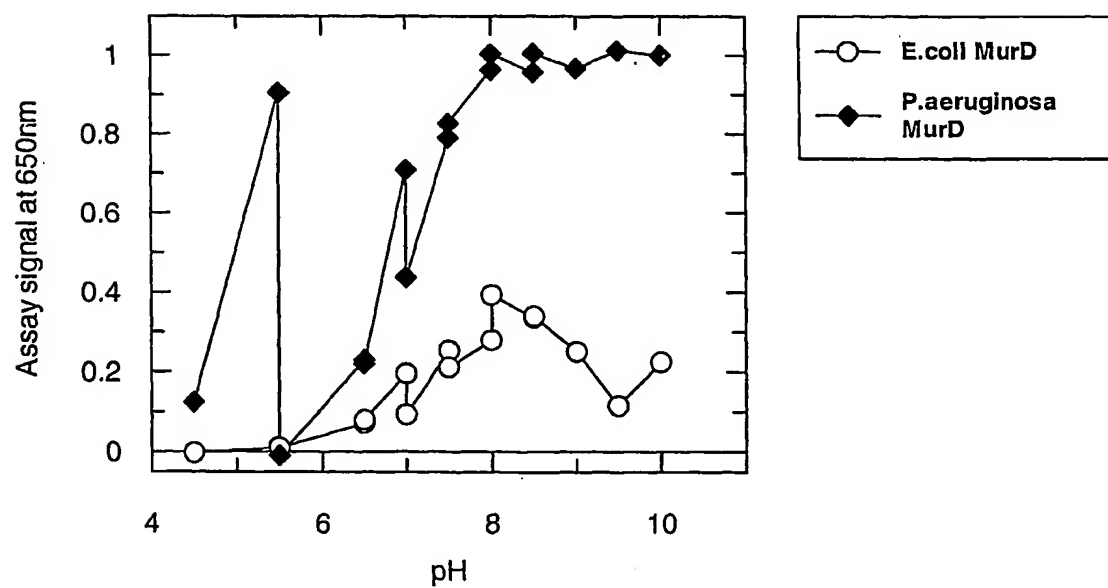


**Figure 6****pH dependence of MurD orthologs**

(a)



(b)



**Figure 7****Background ATPase activity of MurD orthologs**